



US005668863A

**United States Patent** [19][11] **Patent Number:** 5,668,863**Bieselin et al.**[45] **Date of Patent:** Sep. 16, 1997[54] **METHOD AND APPARATUS FOR RECORDING AND RETRIEVAL OF AUDIO CONFERENCES**

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[21] **Appl. No.:** 638,196

[22] **Filed:** Apr. 26, 1996

**Related U.S. Application Data**

[63] Continuation of Ser. No. 509,390, Jul. 31, 1995, Pat. No. 5,559,875.

[51] **Int. Cl.<sup>6</sup>** ..... H04M 3/56; H04M 3/50

[52] **U.S. Cl.** ..... 379/202; 379/67; 379/88

[58] **Field of Search** ..... 379/202, 201, 379/67, 88, 89, 207, 112, 203, 204, 205; 370/260, 261, 262

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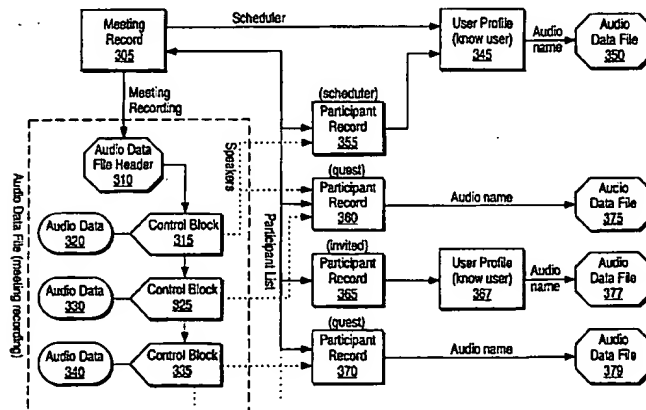
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[57] **ABSTRACT**

An innovative recording and playback system to record and play back audio conferences. In one embodiment, each conference participant's spoken name is recorded and stored in audio files. In addition, the combined voice signals generated by conference participants during the conference are stored in a conference data file. Data links are provided between the spoken names of the conference participants and the combined voice signals recorded during the conference. During playback of the recorded conference, a user can enter a command to an input device to playback the spoken names of the conference participants. In other embodiments, other conference information is stored in audio files and linked to the conference data file such that the information can be retrieved and audibly played back to the user.

**32 Claims, 28 Drawing Sheets**

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US-PAT-NO: 5668863

DOCUMENT-IDENTIFIER: US 5668863 A

TITLE: Method and apparatus for recording and  
retrieval of  
audio conferences

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Claims Text - CLTX (44):

24. The method as set forth in claim 1, further comprising the step of providing a set of second data links between second audio data files and the conference data file, the second audio data files comprising entry announcements identifying conference participants entering the conference, each of said second data links providing a pointer between a location in the conference data file corresponding to combined voice signals recorded at a time a conference participant entered the conference.

Claims Text - CLTX (45):

25. The method as set forth in claim 1, further comprising the step of providing a set of second data links between second audio data files and the conference data file, the second audio data files comprising departure announcements identifying conference participants departing the conference, each of said second data links providing a pointer between a location in the conference data file corresponding to combined voice signals recorded at a time a conference participant departed the conference.

Current US Original Classification - CCOR (1):  
379/202.01

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----- KWIC -----

Detailed Description Text - DETX (13):

The meeting record 220 further identifies the participants to the conference, and provides a vector to the participant records 225 for the recorded conference. The participant record 225 provides a user index 226 to the user profile record 230 for each registered participant, and in addition, provides the pointer to the audio data file header record that is associated with the audio data blocks that contain the voice data of the spoken name of the identified participant. The spoken name of the participant is used to generate audio announcements of the entry, departure and speakers during the recorded conference.

Detailed Description Text - DETX (16):

Similarly, from the meeting record 305, the system can access the identification of the scheduler by accessing the user profile 345. From the user profile record 345, the spoken name of the scheduler is retrieved from its audio data file 350 and is played back to the user in audible form. In addition, from the user profile record 345, the corresponding meeting records 305 of conferences the user is an identified participant of, are identified, enabling, for example, the generation of a conference list

that the user can attend.

Detailed Description Text - DETX (24):

During the conference, the user can perform certain actions, step 577, to generate information associated with the audio recording of the conference. For example, conference participants who are speaking during a particular audio data block can be identified and added to the speaker list in the current audio data file control block, step 578. When a conference participant speaks, the system detects that a participant has spoken, identifies the source of the speech. This can be achieved a number of ways using technology well known in the art. For example, circuitry can be used to determine voice signals on a particular line card interface; the system can therefore identify the conference participant by the line card or input/output port the conference participant is coupled to. Alternately, speech processing which uses a conference participant's voice print to identify the conference participant speaking may be employed.

Claims Text - CLTX (44):

24. The method as set forth in claim 1, further comprising the step of providing a set of second data links between second audio data files and the conference data file, the second audio data files comprising entry announcements identifying conference participants entering the conference, each of said second data links providing a pointer between a location in the conference data file corresponding to combined voice signals recorded at a time a conference participant entered the conference.

Claims Text - CLTX (45):

25. The method as set forth in claim 1, further comprising the step of providing a set of second data links between second audio data files and the conference data file, the second audio data files comprising departure announcements identifying conference participants departing the conference, each of said second data links providing a pointer between a location in the conference data file corresponding to combined voice signals recorded at a time a conference participant departed the conference.

Current US Original Classification - CCOR (1):  
379/202.01